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Business Outlook for West Michigan

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# Business Outlook, Vol. 2, No. 4, Summer 1986

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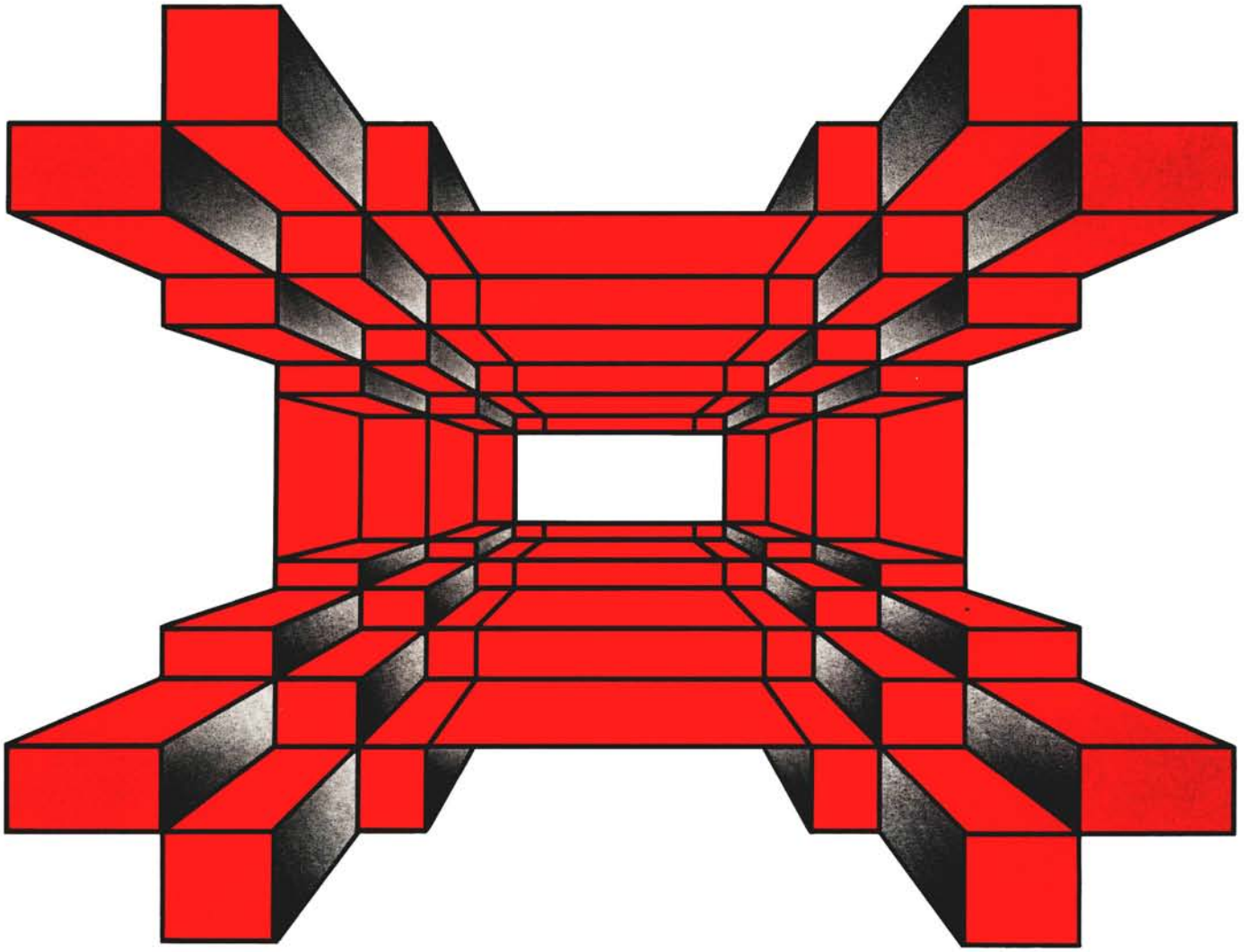
# BUSINESS OUTLOOK

## FOR WEST MICHIGAN



- **Forecast:**
  Positive Outlook Against
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- **Feature Article:**
  Adequacy of the
  Skill Training System

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# BUSINESS OUTLOOK
## FOR WEST MICHIGAN

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*Volume II, Number 4, Summer 1986*

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# BUSINESS OUTLOOK DISCUSSION PAPER

## The Adequacy of the Skill Training System

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Concern about our ability to compete with other nations, to adapt to technological change, and to generate good jobs for all our citizens has focused public attention on the adequacy of our education and training system. Some have questioned our ability to develop the appropriate skills to cope with an increasingly sophisticated technological world.

The National Commission on Excellence in Education in 1983 issued a clarion call for reformation and rededication of our public secondary education system in *A Nation at Risk.* The employer community has also expressed increasing dissatisfaction with the basic skill level of individuals in the general labor market.

The tradition of personal liberty in this country includes the choice of an occupation and the selection of appropriate training. The result is a diffuse "system" of occupational training which defies neat description. In fact, it takes a considerable leap of faith to describe the way in which American workers acquire their occupational skills as a "system" at all.

We see a large number of workers and prospective workers seeking training to prepare themselves for particular occupations. We find training providers responding to the demands of these students to a greater or lesser degree. And we have an employer community which expresses its skill requirements primarily within local labor markets, generally lacking any conscious coordination with providers or students. It is left to the forces of supply and demand in the labor market to ensure that these plans are roughly consistent.

*Financial assistance from the Panel on Technology and Employment, National Academy of Sciences, is gratefully acknowledged.

Clearly, the ultimate question is whether the skills acquisition process is leading to the correct balance among the various occupational skills required for economic growth and individual satisfaction. Are we preparing adequately for the future? Do employers find the skills available to them in the labor market sufficient? Have recent technological changes outstripped the response capability of the occupational skill training system?

### *Occupational Skills Acquisition*

For some occupations, little or no formal preparation is required to secure employment. For others, the entry requirements may be so extensive that it is difficult to even list them. The fact that different occupations have such a range of specific entry requirements makes it difficult to determine the precise dimensions of the occupational training system.

Nevertheless, it is useful to try to distinguish between basic educational preparation and specific occupational training. Basic educational preparation takes place primarily in elementary and secondary schools. It attempts to provide the traditional three R's, but also general citizenship skills and other skills considered essential to a full and productive life. Specific occupational training, which usually requires a certain level of basic skills as a prerequisite, concentrates on preparing individuals for the requirements of particular occupations.

The broadest overview of occupational skill acquisition is obtained from a special survey conducted for the Bureau of Labor Statistics in January 1983. (Bureau of Labor Statistics 1985.) Respondents reported whether they needed *any* specific skills or training to obtain their current (or last) job, and the source of this training.

Table 1 demonstrates the great diversity in both the level and the source of qualifying training for different occupational groups. In total, 55 percent of all workers reported that they *did* need such qualifying skills or training. But the proportion of workers who reported they needed qualifying training ranged from 8 percent for private household occupations to 93 percent for professional specialty occupations.

The source of training in different occupations also varies considerably. The proportion of those who reported specific schooling was required to qualify for their jobs ranges from 2 percent to 82 percent, for example. Overall, the most important sources of qualifying occupational training are informal on-the-job training (28 percent) and schooling (29 percent), but there is substantial variation in the distribution across different occupations.

### *Trends in Skill Requirements*

Table 2 shows the latest forecast of future occupational employment from the Bureau of Labor Statistics (BLS). It is apparent that the occupational groups that are expected to show the greatest employment growth in the next decade are also those that require the most training, particularly schooling.

The three fastest growing groups are the technical, the executive and managerial, and professional occupations. These occupational groups showed the highest incidence of training requirements in Table 1, and also showed the highest contribution of schooling as a source of training.

These statistics do not measure basic education and occupation-specific training perfectly. Nevertheless, the implication is that the jobs of the future will require more training and especially more schooling than has been required in the past.

### *Skill Improvement on the Job*

Not all training occurs prior to entering employment. A great deal of occupational skill improvement occurs on the job. In addition, this portion of our training system would be particularly important if it were necessary to retrain large numbers of workers for new occupations.

According to the special Bureau of Labor Statistics survey, 35 percent of all workers reported that they had taken some skill improvement training since obtaining their current job. (Bureau of Labor Statistics 1985.) The incidence of such training varies considerably across occupational groups,

**Table 1**
**Sources of Qualifying Training by Occupation**

| Occupational group | Percent who needed training | Source of training (percent) | | | | |
|---|---|---|---|---|---|---|
| | | School | Formal company program | Informal on-the-job training | Armed Forces | Other |
| Exec., admin., managerial | 71 | 43 | 12 | 39 | 3 | 4 |
| Professional specialty | 93 | 82 | 9 | 22 | 2 | 4 |
| Technicians and related | 85 | 58 | 14 | 32 | 5 | 3 |
| Sales occupations | 43 | 15 | 12 | 28 | 1 | 4 |
| Admin. support | 57 | 33 | 7 | 31 | 1 | 2 |
| Private household occup. | 8 | 2 | 1 | 4 | – | 5 |
| Service workers | 36 | 13 | 9 | 18 | 1 | 2 |
| Farming, forestry, etc. | 28 | 8 | 1 | 16 | – | 11 |
| Precision prod., craft, repair | 65 | 16 | 17 | 40 | 5 | 10 |
| Mach. oper., assemblers, etc. | 37 | 6 | 6 | 26 | 1 | 3 |
| Trans. and material moving | 36 | 2 | 8 | 26 | 2 | 5 |
| Handlers, helpers, laborers | 16 | 2 | 2 | 13 | 1 | 2 |
| Total, all occupations | 55 | 29 | 10 | 28 | 2 | 4 |

SOURCE: Bureau of Labor Statistics, 1985.

NOTE: Percentages are calculated on the basis of total occupational employment. Many workers reported more than one source of training, so percentages do not add to total.

Table 2
Total Civilian Employment by Occupational Group
(Numbers in thousands)

| Occupation | 1984 Number | 1984 Percent | 1995 Number | 1995 Percent | Percent change in employment 1984-95 |
|---|---|---|---|---|---|
| Total employment | 106,843 | 100.0 | 122,760 | 100.0 | 14.9 |
| Executive, administrative, and managerial workers | 11,274 | 10.6 | 13,762 | 11.2 | 22.1 |
| Professional workers | 12,805 | 12.0 | 15,578 | 12.7 | 21.7 |
| Technicians and related support workers | 3,206 | 3.0 | 4,119 | 3.4 | 28.7 |
| Salesworkers | 11,173 | 10.5 | 13,393 | 10.9 | 19.9 |
| Administrative support workers, including clerical | 18,716 | 17.5 | 20,499 | 16.7 | 9.5 |
| Private household workers | 993 | .9 | 811 | .7 | -18.3 |
| Service workers, except private household workers | 15,589 | 14.6 | 18,917 | 15.4 | 21.3 |
| Precision production, craft, and repair workers | 12,176 | 11.4 | 13,601 | 11.1 | 11.7 |
| Operators, fabricators and laborers | 17,357 | 16.2 | 18,634 | 15.2 | 7.3 |
| Farming, forestry, and fishing workers | 3,554 | 3.3 | 3,447 | 2.8 | -3.0 |

SOURCE: Bureau of Labor Statistics.

ranging from a high of 61 percent of those in professional specialty occupations to a low of 3 percent in private household occupations.

As shown in Table 3, the sources of skill improvement training were less diverse and much less school-oriented than the sources of qualifying training. While 12 percent of all workers reported obtaining their skill improvement training in school, 14 percent reported informal on-the-job training and an additional 11 percent reported a formal company program as the source of their training.

Only among the professional specialty occupations is schooling clearly more prevalent than company training. Given that respondents are least likely to report shorter, less formal training experiences, these figures make it clear that the bulk of skill improvement training occurs at the place of employment.

*Adjustment to Change*

A serious lack of response in the supply of skills would be manifested in skill shortages and/or unemployment of workers with particular types of skills. There has been little evidence of significant skill shortages for any protracted period. We have been plagued with a persistent unemployment problem for the last 25 years, but it seems to result from too many unskilled workers rather than an oversupply of skill training.

A recent study sponsored by the National Commission for Employment Policy (NCEP) sought to assess the adequacy of market response to changes in skill demands produced by the computer revolution. The study found that the number of computers used for business or professional purposes grew at a 33 percent annual rate from 1960 to 1984, increasing by 2 million in 1984 alone. They also estimated that approximately 1 worker in 8 was using a computer at work in 1982. Nevertheless, there has been *no evidence* of a general shortage of persons with the requisite skill and training. (Goldstein and Fraser 1985.)

There are a number of important reasons for this finding. First, a systematic review of occupations that use computers reveals that only about 5 percent of computer users actually require extensive computer training. Most employees pick up their computer skills as needed in the course of their jobs.

Second, the training resources are vast, both in terms of the number of institutions and their capaci-

Table 3
Sources of Skill Improvement Training by Occupation

| Occupational group | Percent who took training | Source of training (percent) | | | |
|---|---|---|---|---|---|
| | | School | Formal company program | Informal on-the-job training | Other |
| Exec., admin., managerial | 47 | 18 | 17 | 16 | 8 |
| Professional specialty | 61 | 34 | 15 | 14 | 11 |
| Technicians and related | 52 | 20 | 18 | 19 | 5 |
| Sales occupations | 32 | 7 | 13 | 15 | 4 |
| Admin. support | 32 | 10 | 10 | 15 | 2 |
| Private household occup. | 3 | 1 | 1 | 1 | 1 |
| Service workers | 25 | 7 | 8 | 12 | 3 |
| Farming, forestry, etc. | 16 | 5 | 2 | 7 | 5 |
| Precision prod., craft, repair | 35 | 7 | 14 | 16 | 3 |
| Mach. oper., assemblers, etc. | 22 | 3 | 4 | 16 | 1 |
| Trans. and material moving | 18 | 2 | 6 | 9 | 1 |
| Handlers, helpers, laborers | 14 | 2 | 2 | 10 | - |
| Total, all occupations | 35 | 12 | 11 | 14 | 4 |

SOURCE: Bureau of Labor Statistics, 1985.

NOTE: Percentages are calculated on the basis of total occupational employment. Many workers reported more than one source of training, so percentages do not add to total.

ty. As with many other skills, it appears that employer-provided training is the biggest single source, but alternatives include computer manufacturers, the military, public and proprietary schools and many others.

Third, it is characteristic that most occupations require computer skills in combination with other occupational capabilities. Thus, it makes good economic sense to teach the computer skills to individuals who already have other occupational skills since this tends to be the lesser task.

Another NCEP-commissioned study looked at the adjustment by students and training institutions to changes in skill requirements over decade-long periods. Focusing on the postsecondary training acquired by the 16 to 24-year-old cohort, it found evidence of dramatic and rapid adjustment to changes in skill requirements. Over time, there were substantial changes in the intended fields of study, the actual field, and the level of completed degrees.

> Overall, the data on the levels and fields of completed degrees suggest that youth respond to oversupplies by earning fewer degrees in oversupplied fields. If they enter an oversupplied field, they increase the amount of education they obtain—presumably to increase their competitiveness in a loose labor market. They respond to shortages or more liberal employment opportunities by increasing their educational investments in these fields at the lower degree levels and reducing them at the higher degree levels—presumably because they are in a seller's market. (Berryman 1985, p. v.)

Each year, there are about 6 million completions of programs of study at the secondary and postsecondary levels. This means that training output from formal channels alone is approximately 5.7 percent of the workforce every year. The sheer volume of these completions represents a considerable opportunity to reconfigure the skill profile of the American labor force. If employer-provided training were added to the total, it seems clear that even greater flexibility would be demonstrated.

Thus, it appears that employers, individuals seeking training, and the training system as a whole, have managed to respond to the challenges posed by technological change and structural transformation. In accord with its decentralized structure, this "system" has shown substantial flexibility. In fact, in some instances there might be legitimate fears of an overreaction of skill supply to reported changes

in demand, as in the rush to secure robotics technician training in 1982-83. (Hunt and Hunt 1983, pp. 158-63.)

Even if structural change accelerates in the years to come, it is unlikely that we will experience specific skill shortages that will compromise the performance of our economic system. The evidence suggests that employers *are* able to secure the appropriate skills, either through new hires or through retraining the existing workforce.

### *Employer Sentiment*

There have been a number of attempts to calibrate the level of employer dissatisfaction with the general education received by employees. One study was conducted in 1983 by the Center for Public Resources. Over 300 business firms, labor unions, and educational institutions were surveyed to determine the extent of agreement about the perceived capabilities of secondary school graduates.

The survey found that educators had a much more favorable perception of the adequacy of basic skill preparation than did business people. Further, the study showed that the school systems appeared to have underestimated the importance of mathematics, science, and speaking/listening skills in meeting business needs while overestimating the importance of reading skills.

A more recent study by the prestigious Committee for Economic Development was motivated by the conviction that one important reason for our nation's lagging competitiveness was the inadequacy of our education system. They surveyed nearly 1000 large and small companies and several hundred postsecondary institutions to determine the adequacy of basic training at the secondary level. They concluded that:

> Business in general is not interested in narrow vocationalism. In many respects, business believes that the [high] schools in recent years have strayed too far in that direction. For most students, employers would prefer a curriculum that stresses literacy, mathematical skills, and problem-solving skills; one that emphasizes learning how to learn and adapting to change. The schools should also teach and reward self-discipline, self-reliance, teamwork, acceptance of responsibility, and respect for the rights of others. (Committee for Economic Development 1985, p. 15.)

A survey by the National Center for Research in Vocational Education of almost 600 employers probed employers' hiring preferences by giving them resumes of hypothetical applicants to rank. It also solicited general comments about the adequacy of basic educational preparation. It was reported that there were three major areas of concern: (1) inadequate preparation in basic skills, (2) poor attitudes and work ethics among youths, and (3) poor job search skills. (Hollenbeck and Smith 1984, p. 25.)

The authors also offered the speculation that perhaps it is not basic skills achievement, but rather a general concern about the trainability of job applicants that is actually troubling employers. The latter may not be amenable to easy correction, especially in the school environment.

One positive trend is increased cooperation between business and training institutions, including both secondary schools and community colleges. Federally funded training under the Job Training Partnership Act (JTPA) has also been modified to give employers a major role in guiding the development of appropriate training programs.

### *Deficiences in Basic Education*

It was concluded earlier that the skill training system has generally responded well to changes in the demand for labor. However, many of the studies cited did raise concerns about deficiencies in basic education that can prevent workers from absorbing the skills they need to compete for good jobs. This focus on basic educational preparation is also reflected in the surveys of business sentiment. One interpretation of business complaints about education is that higher training and retraining costs are imposed by inadequate basic education.

Clearly there is a problem with the *quality* of our basic educational preparation for the world of work. According to the National Commission on Excellence in Education:

- About 13 percent of 17-year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent.

- Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched.

- Many 17-year-olds do not possess the "higher order" intellectual skills we should expect of them. Nearly 40 percent cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps. (1983, pp. 8-9.)

If there is any problem with the *quantity* of training, it lies in the fact that so many young people leave school without the basic skills necessary to undertake the occupational training that will equip them to enter the world of work.

The educational deficiencies of inner-city minority youth cannot be effectively addressed with stop-gap remedial efforts later in life, nor can we wait until an illiterate worker has been displaced from a job to discover that he or she has a reading problem. We must do a better job of equipping all our young people for life in an age of structural change and potential occupational displacement.

A sound strategy for today is to provide a general educational base upon which to build the specific skills that will be needed in the future. If all workers secure this adequate base, we can be confident that the system of occupational skills training will find the adaptable, retrainable human resources necessary to meet our future skill requirements.

*Conclusions*

This review has shown that the skill acquisition system in the U.S. is very flexible. Employers are able and willing to provide the job-specific skills needed by their workers. Training institutions are eager to meet the needs of the market. Individual workers appear to be flexible enough to accommodate changes in the demand for skills.

Thus the problem is not with training for job-specific skills, but with general education for basic competencies. The critical need is to insure that young people have the capability to absorb skill-specific training. This is essential if our human resources need to be reconfigured in the future. The problem-solving and communication skills required by new technologies should be taught to our young people today.

The quality of basic education, particularly at the secondary level, must be improved if we are to meet the threat of international competition and technological change. Our human resources must be the equal of those anywhere in the world if our standard of living is to be maintained.

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# The BUSINESS OUTLOOK for WEST MICHIGAN

## Positive Outlook for West Michigan Stands Out Against a Background of Mixed Signals

Phyllis R. Buskirk

The stage is set for short-term gains in the economy of West Michigan. Job growth should pick up in the four major metro areas in the third quarter. Recent gains took place in an environment of substantial disposable income growth, low prices, and declining interest rates, but mixed signals about the more distant future abound. On the negative side, growth of disposable income has slowed and several important sectors have declined across the U.S.

### Review of Second-Quarter Economic Performance

*The National Economy*

Real Gross National Product (GNP) increased at an annual rate of only 0.6 percent in the second quarter of 1986 compared to a growth rate of 3.8 percent in the first quarter. Rather than entering a period of sustained high growth predicted by many economists, the economy continued its seesaw growth pattern which began in the first quarter of 1985. In addition, inflation, which fell to a very low level in the first quarter of 1986, increased at an annual rate of 2.1 percent in the second quarter.

A major reason for sluggish growth was that manufacturing output did not increase as much as expected. Inventories held by manufacturing firms increased, and motor vehicle production, in particular, continued to decline.

But these trends could be reversed in the near future. Personal consumption expenditures for durable goods—cars, trucks, furniture and equipment as well as other related products—rose 15 percent in the second quarter. Also, inventories in retail and wholesale trade decreased substantially.

Commercial and other nonresidential construction declined, but this was more than offset by increases in residential construction which rose 15 percent. Single-family construction and sales soared, as mortgage interest rates continued to fall. Interest rates declined one-half of a percentage point in the second quarter and close to one percentage point in the first quarter.

*Mixed Signals*

The value of the dollar continued to fall against most currencies, especially the Yen, which increased in value to record levels. These shifts did not reduce the trade deficit, however. The trade imbalance set a new record of $146.4 billion in the second quarter.

In part, the trade deficit increased because Japanese and other exporters cut prices in an attempt to maintain volume at the cost of reduced profits. These price reductions probably cannot be sustained. In addition, they create huge incentives to transfer production to the U.S. Several Japanese producers of autos and other commodities acknowledge that changes in the terms of trade have swung the cost advantage to U.S. production and are accelerating plans to produce in the U.S.

Falling oil prices have caused a major recession in oil producing states. Investments in petroleum exploration and dri' ing have plummeted, and the solvency of a number of financial institutions has been threatened. At the same time the reduction in the price of energy and chemicals could eventually stimulate strong growth in a broad range of industries.

Similarly, declines in agricultural prices and severe drought in the Southeast have caused enormous hardships in many agricultural states and re-

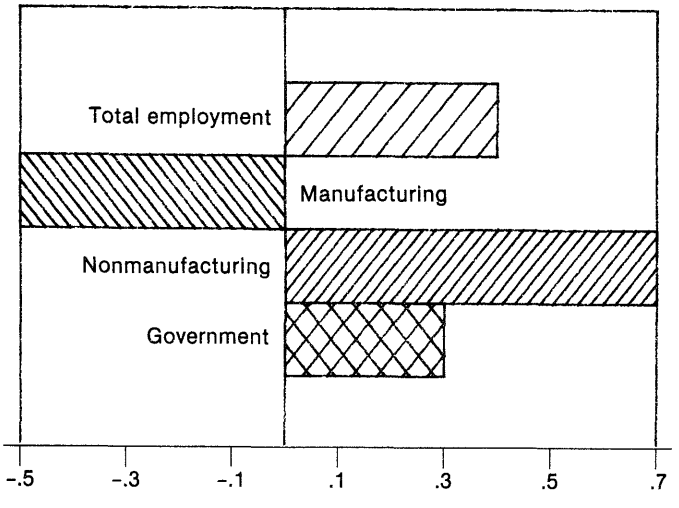
quired major increases in federal outlays for price supports. At the same time, the lower prices reduce inflation and reduce pressure on wages.

Even the great bull market of 1986 pulled back from record setting levels.

*Employment, Unemployment, and Income*

Employment continued to increase in the second quarter of 1986, but the pace slowed. Growth was 0.4 percent in the second quarter, about half the growth rate of the first quarter. As usual, growth was strongest in the nonmanufacturing sector. Manufacturing employment declined and government employment increased.

**Chart 1**
**United States Employment**
**Percentage Change**
**Second Quarter**




SOURCE: U.S. Department of Labor.

The unemployment rate rose from 7.1 percent in the first quarter to 7.2 percent in the second, and initial claims for unemployment insurance were 1.7 percent higher. This sharp increase in claims indicated that a large part of the unemployment increase was due to a relatively large number of workers being laid off, rather than only new entrants or the long-term unemployed having difficulty finding work.

Personal income increased in the second quarter by $44.1 billion. This did not quite match the $52.9 billion gain in the first quarter. Transfer payments increased less than in the first quarter, when cost-of-living adjustments had pushed social security and other federal program payments higher. Proprietors' income rose strongly in the second quarter, due almost entirely to increased crop subsidy payments to farmers.

Negative factors contributing to reduced growth in workers' wage and salary income were declines in employment and hours worked plus strikes in two basic industries—communications and steel.

*Outlook for the Third Quarter*

The Conference Board's national Index of Help-Wanted Advertising declined for the second quarter in a row. The index fell from 163 to 155. Since help-wanted ads are particularly sensitive to trends in the service sector, and services are the major source of overall growth, a clear-cut decline would suggest that the economy is headed into a recession. But the signal is mixed because declines in April and May were followed by an upturn in June.

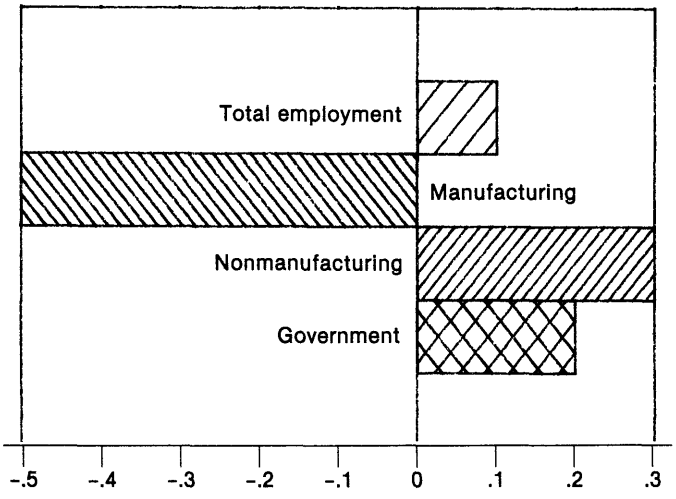
Similarly, although the national Index of Leading Economic Indicators showed a modest three-month increase from 175.4 to 178.4 over the first quarter, it did not increase in each month. In addition, three out of four measures used as national components in the Institute's Index of Leading Indicators fell. (These measures are derived from the National Association of Purchasing Management (NAPM) survey, and are displayed in Appendix Table A-3.) So even these measures provided mixed signals.

Overall it appears that growth should continue for the next three to six months, but longer run trends are unclear. Factors such as the value of the dollar, energy and agricultural prices, consumer income, domestic and Third World debt can have strong positive, neutral or negative effects on economic growth.

***The Michigan Economy***

Auto production in Michigan slowed in response to high inventories and work stoppages in the second quarter. Over the same period, manufacturing employment (shown in Chart 2) declined 0.5 percent. That decrease was more than offset by gains of 0.3 percent in the larger nonmanufacturing sector and 0.2 percent in the much smaller government sector. Nevertheless, unemployment levels and initial claims for unemployment insurance rose, and weekly hours for production workers fell. The reduction in hours amounted to a relatively large 1.6 percent. Overtime was still prevalent as the workweek for manufacturing averaged over 42 hours.

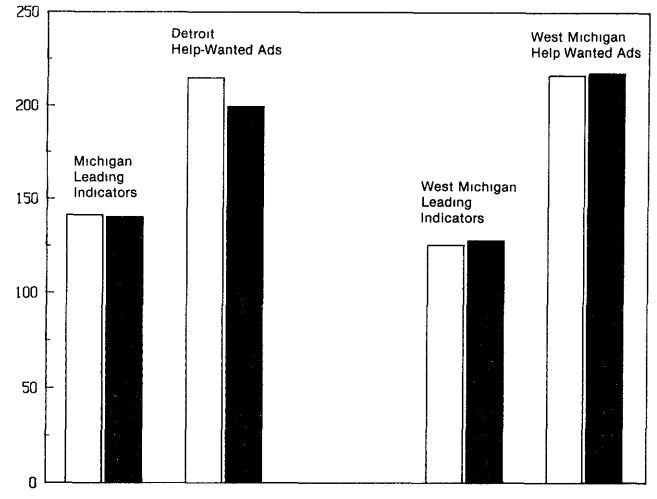
**Chart 2**
**Michigan Employment**
**Percentage Change**
**Second Quarter**




SOURCE: Based on Michigan Employment Security Commission data after seasonal adjustment by the Institute.

The statewide Index of Leading Indicators declined slightly. This is an indication that manufacturing employment is likely to continue to decline. The Detroit Index of Help-Wanted Advertising (shown in Chart 3) declined substantially, while the West Michigan index rose slightly. This suggests that declines in nonmanufacturing employment in the state's largest labor market may be sufficient to cause statewide employment to decline.

**Chart 3**
**Michigan & West Michigan Indexes**
**First & Second Quarters 1986**
(1982=100)




*Bankruptcy Claims*

During the first six months of 1986, bankruptcy claims reversed a five-year downward trend by rising sharply. Although the 36 percent jump in claims statewide almost matched the 38 percent increase experienced in West Michigan in 1981, the context is different. This boost in claims follows a large expansion in incorporations. In fact, over the past year-and-a-half, Michigan was one of the leading states in the number of new business starts. Since a high percentage of new businesses fail, the recent increase in bankruptcies could have been anticipated.

West Michigan exhibited greater financial stability. Chapter 11 claims, available only to large businesses, declined 17 percent in the federal court's western area, but increased 23 percent in the eastern area. An even bigger regional difference was in Chapter 13 bankruptcies which require court oversight of repayment of debts owed by individuals and small businesses. These claims rose 25 percent in the western region but 75 percent in the east. Whatever the cause, any significant jump in bankruptcy claims often precedes other economic dislocations.

***The West Michigan Economy***

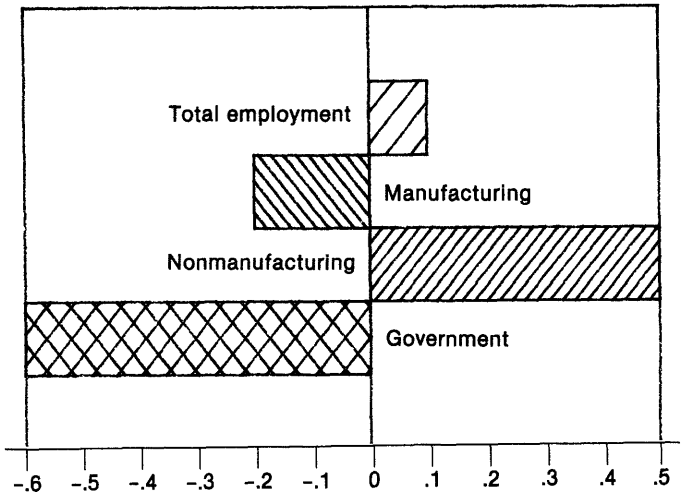
As anticipated, employment in West Michigan showed a modest gain of only 0.1 percent. The increase in nonmanufacturing employment was a healthy 0.5 percent. This was sufficient to overcome declines in manufacturing employment of 0.3 percent and government employment of 0.7 percent. (See Chart 4.)

In the nonmanufacturing sector, the large producers of new jobs were construction, retail and wholesale trade, and finance-insurance-real estate. In manufacturing, transportation equipment, rubber products, electronic and electrical instruments, food products, and chemicals showed some increase. The latter change was mostly seasonal, however. It was also offset by declines in other durable and nondurable goods industries. There was a small loss in furniture industry jobs in the second quarter. This was surprising because furniture manufacturing has recently shown consistent growth.

In both West Michigan and the nation as a whole, a reduction in manufacturing employment was coupled with a reduction in hours worked in manufacturing. This slowdown in employment and hours reduced the overall income generated by West

Michigan's hourly manufacturing jobs by 0.3 percent (June compared to March estimates). Since manufacturing's hourly workforce makes up 22 percent of West Michigan's wage and salary employment, even small changes in their pay levels have a direct effect on overall income and spending.

**Chart 4**
**West Michigan Employment**
**Percentage Change**
**Second Quarter**




SOURCE: Based on Michigan Employment Security Commission data after seasonal adjustment by the Institute.

Interestingly, the March to June earnings gain of manufacturing workers was strongest in the Battle Creek area (over 5 percent). The increase was 0.4 percent in Muskegon. In contrast, manufacturing workers' earnings declined by 1.2 percent and 0.2 percent in Kalamazoo and Grand Rapids, respectively.

The unemployment rate for West Michigan rose to 8.3 percent, surpassing the 7.8 rate in the first quarter of 1986. The largest increase was in Grand Rapids. The increase in Kalamazoo was also substantial. In contrast, Battle Creek had a very small increase, and Muskegon a modest decline. (See Chart 5.) Thus, the two areas with relatively high levels of unemployment were less adversely affected than the areas with low levels.

*Outlook for West Michigan*

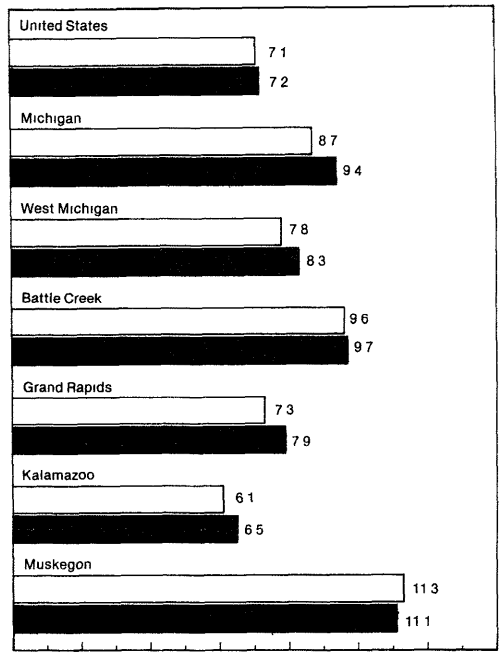
Prospects for continued growth still look bright. As shown in Chart 3, the Index of Leading Indicators for West Michigan increased from 125 to 128, and the Index of Help-Wanted Advertising increased more modestly from 216 to 217. Since leading indicators more closely track manufacturing employment, and help-wanted ads track nonmanufacturing employment, future growth should be a bit more balanced between these sectors than it has been in the past.

In addition, contractions in government employment may well have run their course. Employment levels have likely already been reduced to accommodate reductions in federal, state, and local budgets.

*Construction and Housing Sales*

Housing sales were brisk and new contracts for construction increased. These results were anticipated consequences of low mortgage and vacancy rates. Most contracts, however, were for single-family homes. Of the four metro areas, only the Kalamazoo area had a substantial increase in the number of apartments started in the first six months of 1986.

**Chart 5**
**Unemployment Rates**
**First & Second Quarters 1986**
(Seasonally adjusted)




SOURCES: U.S. Department of Labor and MESC. Adjustment of metro areas by the Institute.

The Federal Home Loan Bank in Indianapolis reports that vacancy rates remain low in the West Michigan area. The Grand Rapids rate, at 1.8 percent of existing units, still remains the lowest. Kalamazoo and Muskegon both had 2.4 percent vacancy rates. No survey has been conducted since

1984 in the Battle Creek area. (For more detail, see Appendix Table A-11.)

Nonresidential building was also buoyant in West Michigan in the first half of 1986. The dollar value of new contracts was 12 percent above the value in the first half of 1985. In the Grand Rapids area, nonresidential projects amounted to $135 million (6.6 percent over year-earlier levels). Battle Creek had $14.6 million in new contracts this year. That translated into a very healthy 23 percent increase. In Kalamazoo the jump was even higher—56 percent. Half of Kalamazoo's $36 million year-to-date total was for hospital and medical buildings.

Almost all growth in nonbuilding contracts for streets, highways, sewage treatment and water supply took place in Grand Rapids. The other three metro areas had steep declines in that type of construction contracts.

Selected monthly data for West Michigan, unadjusted for seasonal variations, appear in Table 1 below.

**Table 1**
**West Michigan Statistics for Selected Months**
(Not adjusted unless indicated)

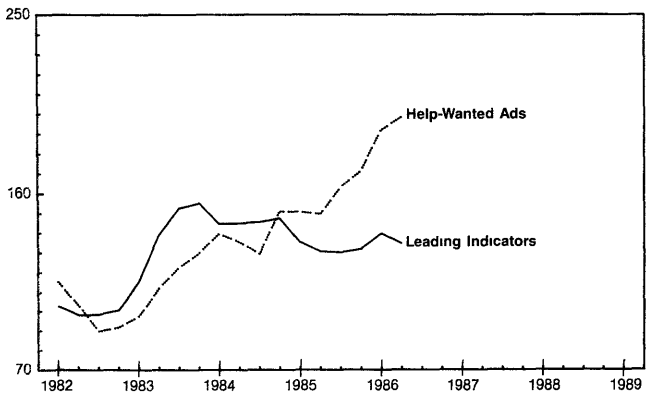
| | Recent | 3 months earlier | | 12 months earlier | |
|---|---|---|---|---|---|
| Measure | June 1986 | March 1986 | Percent change March to June | June 1985 | Percent change June to June |
| Leading indicator measures: | | | | | |
| Average weekly hours | 40.9 | 41.6 | -1.7 | 41.1 | -0.5 |
| UI initial claims (per week) | 1,780 | 2,023 | -12.0 | 1,889 | -5.8 |
| New dwelling units | 690 | 388 | 77.8 | 629 | 9.7 |
| Jobs in area: | | | | | |
| Manufacturing | 163,600 | 162,500 | 0.7 | 163,700 | -0.1 |
| Nonmanufacturing | 280,100 | 271,800 | 3.1 | 273,800 | 2.3 |
| Government | 61,700 | 66,100 | -6.7 | 61,200 | 0.8 |
| Total employed | 505,400 | 500,400 | 1.0 | 498,700 | 1.3 |
| Number unemployed | 50,000 | 45,900 | 8.9 | 55,200 | -9.4 |
| Unemployment rate | 8.6 | 8.1 | ... | 9.5 | ... |
| Percentage point change | ... | ... | 0.5 | ... | -0.9 |
| West Michigan indexes (seas. adj.): | | | | | |
| Leading indicator | 130 | 125 | 4.0 | 125 | 4.0 |
| Help-wanted ads | 213 | 219 | -2.7 | 186 | 14.5 |

SOURCES: New dwelling unit data from F. W. Dodge Division, McGraw Hill Information Systems Company. Indexes from the Upjohn Institute. Other data based on metro area releases of the Michigan Employment Security Commission.

# The BUSINESS OUTLOOK for the BATTLE CREEK AREA

The Battle Creek metro area should experience continued employment gains in the third quarter. Growth in manufacturing is likely to be weaker than it was in the second quarter. The related local Index of Leading Indicators declined by 3.7 percent. However, nonmanufacturing employment may grow more rapidly. A 3.3 percent rise in the Index of Help-Wanted Advertising points to greater job demand in that sector. Further cutbacks in federal funding may result in diminished employment in state and local government over the next few months.

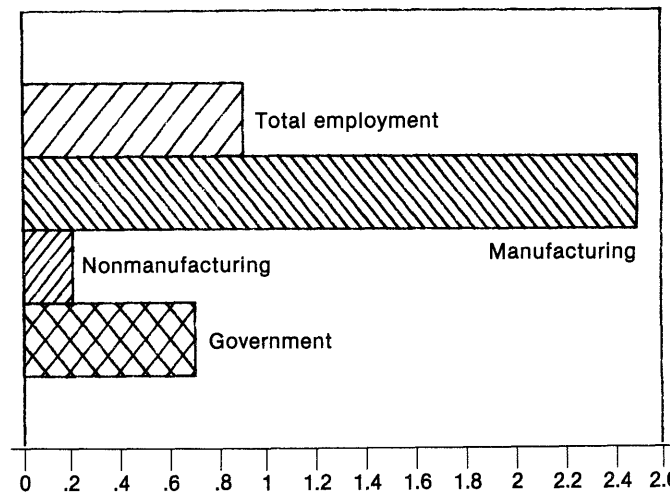
**Chart BC-1**
**Battle Creek Indexes**
**by Quarter - First of 1982 to Second of 1986**
(1982=100)




Manufacturing jobs increased by an amazingly strong 2.5 percent in the second quarter. Nonmanufacturing moved 0.2 percent higher. Even government employment was 0.7 percent higher in the second quarter after seasonal adjustment. (See Chart BC-2.) Throughout the other MSAs in West Michigan public sector employment declined by 0.7 percent.

Two hundred jobs were added in the fabricated metal industry between March and June. In contrast, the usual seasonal pattern indicates that no change would be expected. Food product employers added 500 workers. This is 200 more than is usual in the spring. Even employment in nonelectrical machinery, which declined for many years, increased by as many as 100 workers.

**Chart BC-2**
**Battle Creek Employment**
**Percentage Change**
**Second Quarter**




SOURCE: Based on Michigan Employment Security Commission data after seasonal adjustment by the Institute.

Wholesale trade added its usual 100 jobs, but the base employment was already higher by some 100 workers than in 1985. Employment in retail trade increased by 300 workers. In contrast, construction employment was lower by 200 workers than a year ago.

The decline in the construction workforce accompanied sharp declines in the value of residential (21 percent) and nonbuilding (9 percent) projects from year-earlier levels. Overall, contracts of all types were 1.4 percent lower in the first half of 1986 than for the same period of 1985. In contrast, two nonresidential categories, commercial—such as the new K-Mart adjacent to Lakeview Square—and religious had dollar value increases.

New home sales were brisk in many parts of the area. Sales-to-listing ratios for the first five months of 1986 ranged from under 1 out of 10 to over 4 out of 10, depending on location. Financial institutions were faced with backlogs of refinancing along with a large volume of newly purchased properties. Some delays pushed up the costs since rates began to rise before the paperwork could be processed.

Uncertainty continued to surround the fate of local Clark Equipment operations. Meanwhile two more Japanese firms moved closer to investing in local manufacturing facilities. The Kellogg Company moved into its new downtown headquarters, reorganized its operations, and announced healthy profits. The vacating of H.B. Sherman's lawn and garden equipment plant sparked discussions of how to best utilize the plant, which will be donated to the city.

**Table BC-1**
**Battle Creek Statistics for Selected Months**
(Not adjusted unless indicated)

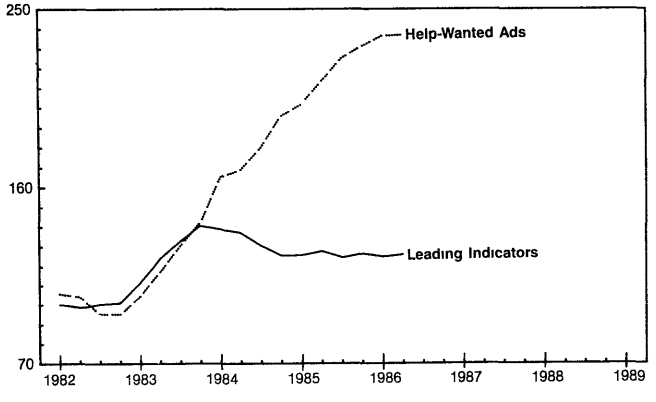
| | Recent | 3 months earlier | | 12 months earlier | |
|---|---|---|---|---|---|
| | June 1986 | March 1986 | Percent change March to June | June 1985 | Percent change June to June |
| Leading indicator measures: | | | | | |
| Average weekly hours | 42.4 | 42.5 | -0.2 | 41.9 | 1.2 |
| UI initial claims (per week) | 296 | 310 | -4.5 | 269 | 10.0 |
| New dwelling units | 54 | 13 | 315.4 | 23 | 134.8 |
| Jobs in area: | | | | | |
| Manufacturing | 15,600 | 14,800 | 5.4 | 14,900 | 4.7 |
| Nonmanufacturing | 28,700 | 28,000 | 2.5 | 28,000 | 2.5 |
| Government | 11,600 | 11,800 | -1.7 | 11,300 | 2.7 |
| Total employed | 55,900 | 54,600 | 2.4 | 54,200 | 3.1 |
| Number unemployed | 6,200 | 6,000 | 3.3 | 6,900 | -10.1 |
| Unemployment rate | 9.7 | 9.7 | ... | 10.9 | ... |
| Percentage point change | ... | ... | 0.0 | ... | -1.2 |
| Battle Creek indexes (seas. adj.): | | | | | |
| Leading indicator | 136 | 139 | -2.2 | 129 | 5.4 |
| Help-wanted ads | 200 | 204 | -2.0 | 146 | 37.0 |

SOURCES: New dwelling unit data from F. W. Dodge Division, McGraw Hill Information Systems Company. Indexes from the Upjohn Institute. Other data based from the Michigan Employment Security Commission.

# The BUSINESS OUTLOOK for the GRAND RAPIDS AREA

Job growth should pick up a bit in the Grand Rapids metro area during the third and fourth quarters. The Index of Leading Indicators rose only from 125 to 126, as shown in Chart GR-1. This is not a strong positive signal, and a substantial turnaround in manufacturing employment is therefore unlikely in the near future. Job creation will remain primarily in the nonmanufacturing sector. Although the related local Index of Help-Wanted Advertising went up only from 236 to 237, the high level suggests that employment growth should continue.

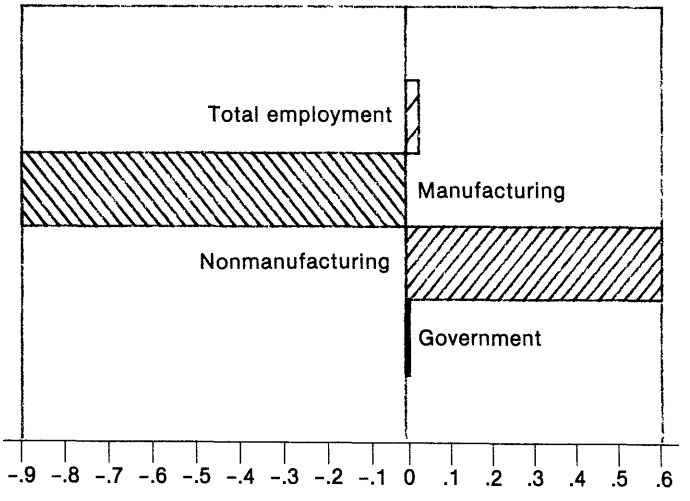
**Chart GR-1**
**Grand Rapids Indexes**
**by Quarter - First of 1982 to Second of 1986**
(1982=100)




Nonmanufacturing employment rebounded in the second quarter, as predicted by *Business Outlook.* While the change was a moderate 0.6 percent, it was sufficient to offset the 0.9 percent loss in manufacturing employment. (See Chart GR-2.)

Job gains and losses were unevenly spread over the various major industries in this metro area. When June employment is compared to March, furniture and fixtures took an unusual dip of 200 workers over the three-month period. Paper and allied products lost 100 jobs, as did printing and publishing. Nonelectrical machinery employment, which usually registers a spring gain, had fallen by 300 workers by June.

**Chart GR-2**
**Grand Rapids Employment**
**Percentage Change**
**Second Quarter**




SOURCE: Based on Michigan Employment Security Commission data after seasonal adjustment by the Institute.

Construction added an additional 3,500 workers in the second quarter, almost 900 more than usual. Retail trade gained 1,100 workers, exceeding usual growth by about 100 workers. Meanwhile, finance-insurance-real estate achieved its usual gain of only 100 workers. Wholesale trade was bolstered by 500 more workers, equaling the gain in spring 1984. In contrast, wholesale trade did not experience any increase in workers during the second quarter of 1985.

According to F.W. Dodge, the value of Grand Rapids area construction contracts in the first six months of 1986 was 18 percent higher than in 1985. Street, sewer and water, airport facilities and other nonbuilding construction increased at a faster pace. This increase may not account fully for the recent 38 percent rise in the local construction workforce. Most likely Grand Rapids' construction firms are working on projects in surrounding areas.

Apartment construction was down to half the 1985 level. In contrast, single-family commitments were 38 percent higher. The March vacancy rate for all existing housing at 1.8 percent was particularly low. (See Appendix Table A-11.) Uncertainty over new tax reform proposals and their impact on investment income derived from real estate may be delaying building decisions here (and in the rest of the nation).

Riding high on the office furniture sales boom, Steelcase announced plans to double its workforce over the next 15 years. Herman Miller broke into the ranks of the Fortune 500. Donnelly Mirrors is building at a new northside industrial park in Holland. Lear Siegler will be bringing more aerospace and automotive production to the area and plans to increase employment by 550 workers before year-end. These and other increases in employment have helped generate the 5.5 percent population growth in Grand Rapids between 1980 and 1985. (See Appendix Table A-5.)

**Table GR-1**
**Grand Rapids Statistics for Selected Months**
(Not adjusted unless indicated)

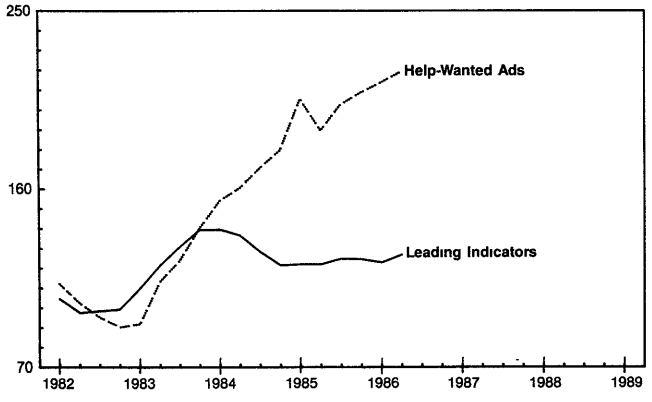
| | Recent | 3 months earlier | | 12 months earlier | |
|---|---|---|---|---|---|
| | June 1986 | March 1986 | Percent change March to June | June 1985 | Percent change June to June |
| Leading indicator measures: | | | | | |
| Average weekly hours | 40.3 | 41.0 | -1.7 | 40.6 | -0.7 |
| UI initial claims (per week) | 932 | 1,087 | -14.3 | 1,034 | -9.9 |
| New dwelling units | 543 | 297 | 82.8 | 519 | 4.6 |
| Jobs in area: | | | | | |
| Manufacturing | 98,100 | 98,600 | -0.5 | 100,000 | -1.9 |
| Nonmanufacturing | 167,800 | 163,900 | 2.4 | 164,300 | 2.1 |
| Government | 29,100 | 29,800 | -2.3 | 28,900 | 0.7 |
| Total employed | 295,000 | 292,300 | 0.9 | 293,200 | 0.6 |
| Number unemployed | 27,800 | 25,300 | 9.9 | 30,700 | -9.4 |
| Unemployment rate | 8.3 | 7.7 | ... | 9.1 | ... |
| Percentage point change | ... | ... | 0.6 | ... | -0.8 |
| Grand Rapids indexes (seas. adj.): | | | | | |
| Leading indicator | 129 | 124 | 4.0 | 124 | 4.0 |
| Help-wanted ads | 231 | 238 | -2.9 | 212 | 9.0 |
| Business activity | 134.4 | 130.4 | 3.1 | 124.5 | 8.0 |

SOURCES: New dwelling unit data from F. W. Dodge Division, McGraw Hill Information Systems Company. Indexes from the Upjohn Institute. Business activity index from Seidman School of Business at Grand Valley State College. Other data from the Michigan Employment Security Commission.

# The BUSINESS OUTLOOK for the KALAMAZOO AREA

Kalamazoo employment growth is expected to pick up during the third quarter. A key indicator that the pace of growth in manufacturing should increase is the local Index of Leading Indicators which climbed from 123 to 127, as shown in Chart K-1. Nonmanufacturing employment is also likely to show gains. The Index of Help-Wanted Advertising rose from 214 to 219.

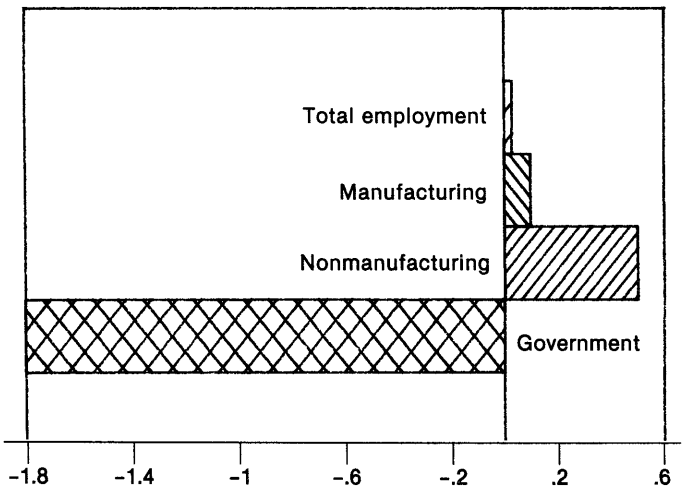
**Chart K-1**
**Kalamazoo Indexes**
**by Quarter - First of 1982 to Second of 1986**
(1982=100)




Growth in private sector employment just offset losses in government employment in the second quarter. Nonmanufacturing industries continued to generate the fastest job growth (0.5 percent). Employment in that sector hit an all-time high once again. (See Chart K-2.)

Local manufacturing firms added over 450 workers to their payrolls during the second quarter of 1986. Over 50 hires took place in fabricated metal firms. Other durable goods producers accounted for another 50 additions. Firms in the chemicals-petroleum group added between 150 and 200 workers. Printing and publishing and other producers of nondurable goods each upped their employment by 100 workers.

**Chart K-2**
**Kalamazoo Employment**
**Percentage Change**
**Second Quarter**




SOURCE: Based on Michigan Employment Security Commission data after seasonal adjustment by the Institute.

Retail trade accounted for over 1,000 additional nonmanufacturing jobs. Most of this increase represents normal seasonal gains. Wholesale trade employment went up by 200. The finance-insurance-real estate sector increased employment by almost 100 workers. Construction, which usually picks up in the spring, did not show gains as strong as a year ago.

Although government employment generally falls substantially in Kalamazoo each spring, as local schools close and Western Michigan University enrollment drops percipitously for the summer, this year's decline was unusually steep. We speculate that many nonteaching positions were left unfilled in anticipation of governmental budget cuts.

The (seasonally adjusted) unemployment rate rose in Kalamazoo from 6.1 percent of the workforce in the first quarter to 6.5 percent in the second quarter. Chart 5 shows that this rate is below the national average and considerably lower than the rates in other West Michigan cities. (See Appendix Table A-7 for unadjusted unemployment rates for other Michigan cities.)

Although the rate of growth in local construction employment was moderate, F. W. Dodge data reveal that construction contracts increased by a very healthy 25 percent in the first half of 1986. Twenty-seven percent more dwelling units were slated for construction. Kalamazoo was the only metro area in West Michigan with a sizable number of apartments under construction in the second quarter.

There were fewer new commercial construction contracts this spring compared to the spring of 1985. Nevertheless, a number of projects are under way, including a sizable motel expansion, construction of a new UPS facility, and the refurbishing of historic structures for commercial purposes.

Home sales were particularly strong in Kalamazoo in the second quarter of 1986. April was a record month for units and dollar amount sold. The sales-to-listing ratio for all types of property went from 3.4 out of 10 in the first six months of 1985 to 3.9 out of 10 in 1986—a positive sign. Local financial institutions were unable to keep up with the demand for refinancing existing mortgages while handling the new sales. Vacancy rates in Kalamazoo were also favorable. Only 2.4 percent of existing inventory were not occupied early this year.

The Upjohn Company is celebrating its 100th anniversary this year. Numerous events, including dinners for over 7,000 workers and their spouses, have bolstered local businesses. Also, a trade expo was combined with the "High on Kalamazoo" Air Show in June. This provided excellent exposure of local wares to national purchasing agents. Over 150,000 people came to the air show. With the Flower Fest in July and the Wine and Harvest Festival in September, the Kalamazoo area will continue to attract out-of-town visitors. Finally, a local firm, KALSEC, is marketing a spice-derived food preservative that may revolutionize portions of the nation's food industry.

**Table K-1**
**Kalamazoo Statistics for Selected Months**
(Not adjusted unless indicated)

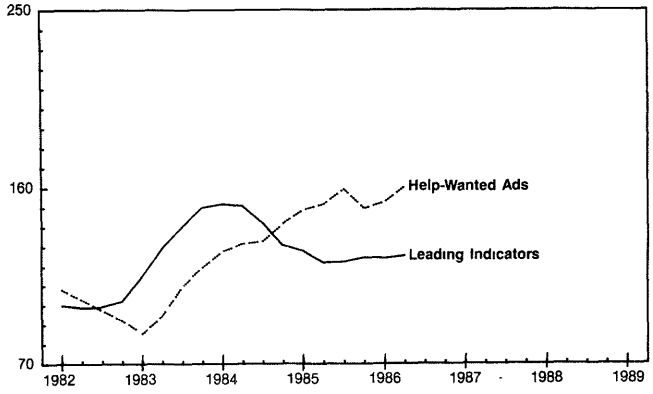
| | Recent | 3 months earlier | | 12 months earlier | |
|---|---|---|---|---|---|
| | June 1986 | March 1986 | Percent change March to June | June 1985 | Percent change June to June |
| Leading indicator measures: | | | | | |
| Average weekly hours | 42.2 | 43.7 | -3.4 | 43.0 | -1.9 |
| UI initial claims (per week) | 243 | 299 | -18.7 | 258 | 0.0 |
| New dwelling units | 53 | 51 | 3.9 | 49 | 8.2 |
| Jobs in area: | | | | | |
| Manufacturing | 30,100 | 29,600 | 1.7 | 29,400 | 2.4 |
| Nonmanufacturing | 54,600 | 52,100 | 4.8 | 52,900 | 3.2 |
| Government | 13,600 | 16,900 | -19.5 | 13,400 | 1.5 |
| Total employed | 98,300 | 98,600 | -0.3 | 95,700 | 2.7 |
| Number unemployed | 7,800 | 6,700 | 16.4 | 8,400 | -7.1 |
| Unemployment rate | 7.1 | 6.2 | ... | 7.7 | ... |
| Percentage point change | ... | ... | 0.9 | ... | -0.6 |
| Kalamazoo indexes (seas. adj.): | | | | | |
| Leading indicator | 129 | 123 | 4.9 | 123 | 4.9 |
| Help-wanted ads | 218 | 218 | 0.0 | 178 | 22.5 |

SOURCES: New dwelling unit data from F. W. Dodge Division, McGraw Hill Information Systems Company. Indexes from the Upjohn Institute. Other data from the Michigan Employment Security Commission.

# The BUSINESS OUTLOOK for the MUSKEGON AREA

Employment gains in nonmanufacturing could be offset by expected losses in manufacturing over the next few months in the Muskegon metro area. Thus, it is unlikely that the recent high growth of 0.3 percent in total employment will be repeated. As predicted in *Business Outlook,* the private sector showed strength in the second quarter of 1986. Manufacturing jobs rose by a hefty 1.3 percent, while nonmanufacturing jobs increased more modestly, at 0.2 percent. In contrast, government employment declined 1.8 percent on a seasonally adjusted basis, as shown in Chart M-2.

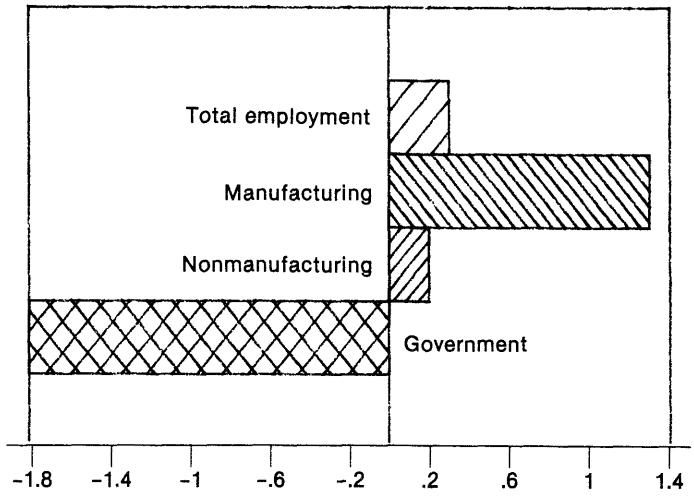
**Chart M-1**
**Muskegon Indexes**
**by Quarter - First of 1982 to Second of 1986**
(1982=100)




Just where did the second-quarter job gains occur? Non-seasonally adjusted data reveal that transportation equipment employment increased by almost 300 workers in the second quarter. Retail trade led the increase in nonmanufacturing employment with the addition of over 450 workers. Also, the finance-insurance-real estate and construction industries added over 50 and 250 workers, respectively—about average for this time of year.

The seasonally adjusted unemployment rate declined from 11.7 in the first quarter to 11.2 in the second as shown in Chart 5. But plenty of workers still are having trouble finding work. Twenty-three openings at a local papermill brought out a flood of 4,800 persons to pick up applications.

**Chart M-2**
**Muskegon Employment**
**Percentage Change**
**Second Quarter**




SOURCE: Based on Michigan Employment Security Commission data after seasonal adjustment by the Institute.

Muskegon's Index of Leading Indicators went up from 124 to 126 in the second quarter. The Index of Help-Wanted Advertising registered a stronger gain, from 153 to 161 (as shown in Chart M-1). These increases suggest that Muskegon's economy is positioned for further growth. However, growth will be dampened by the closing of CWC Foundry's Plant Number 3. This will idle up to 515 hourly and salaried workers by mid-September.

On a positive note, in May of 1986, the vacancy rate was only 2.4 percent for all types of housing units. That compares favorably with the rates shown for other Michigan metro areas in Appendix Table A-11. This could be due in part to this area's advantageous lakeside location.

Like homeowners elsewhere, many Muskegon residents refinanced their homes in response to the

availability of lower mortgage rates. But new mortgages also rose. The ratio of home sales to listings improved from 2.5 sales out of every 10 listings in the first six months of 1985 to 2.9 out of 10 in 1986.

Residential construction contracts declined in the first six months of 1986 relative to the same period of 1985, but contracts for single-family homes increased by 26 percent in value, according to F. W. Dodge. Meanwhile, commercial projects were running 62 percent higher in the first half of 1986 compared to a year ago. Contracts for educational buildings dwarfed the level recorded in all of last year.

Muskegon residents got a strong psychological boost at the end of June. The Hilt, a refurbished center for the arts, and the Harbor Hilton Hotel were officially opened with appropriate recognition for the tremendous community effort that helped create these projects. The Great Lumbertown Music Festival attracted many visitors to the waterfront to hear nationally known singing groups. In addition, Shaw-Walker and the local Neway division of Lear Siegler announced plans for expansion and consolidation. The Tholstrup Cheese start-up, Arthur Cheese's tentative plans to expand, the Cherry Hill Processing comeback, as well as Cole's Quality Foods growth should bolster economic activity levels.

**Table M-1**
**Muskegon Statistics for Selected Months**
(Not adjusted unless indicated)

| | Recent | 3 months earlier | | 12 months earlier | |
|---|---|---|---|---|---|
| | June 1986 | March 1986 | Percent change March to June | June 1985 | Percent change June to June |
| Leading indicator measures: | | | | | |
| Average weekly hours | 40.3 | 41.0 | -1.7 | 40.5 | -0.5 |
| UI initial claims (per week) | 309 | 327 | -5.5 | 328 | 0.0 |
| New dwelling units | 40 | 27 | 48.1 | 38 | 5.3 |
| Jobs in area: | | | | | |
| Manufacturing | 19,800 | 19,500 | 1.5 | 19,400 | 2.1 |
| Nonmanufacturing | 29,000 | 27,800 | 4.3 | 28,600 | 1.4 |
| Government | 7,400 | 7,600 | -2.6 | 7,600 | -2.6 |
| Total employed | 56,200 | 54,900 | 2.4 | 55,600 | 1.1 |
| Number unemployed | 8,200 | 7,900 | 3.8 | 9,200 | -10.9 |
| Unemployment rate | 11.8 | 11.7 | ... | 13.1 | ... |
| Percentage point change | ... | ... | 0.1 | ... | -1.3 |
| Muskegon indexes (seas. adj.): | | | | | |
| Leading indicator | 127 | 124 | 2.4 | 121 | 5.0 |
| Help-wanted ads | 163 | 156 | 4.5 | 154 | 5.8 |

SOURCES: New dwelling unit data from F. W. Dodge Division, McGraw Hill Information Systems Company. Indexes from the Upjohn Institute. Other data from the Michigan Employment Security Commission.

## Table A-1
## Index of Help-Wanted Advertising (1982=100)

| Area | Annual averages (Selected years) | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 146 | 120 | 100 | 116 | 139 | 159 | 150 | 163 | 171 | 192 | 199 |
| Grand Rapids | 192 | 183 | 100 | 124 | 177 | 218 | 213 | 225 | 231 | 236 | 237 |
| Kalamazoo | 172 | 158 | 100 | 118 | 166 | 202 | 190 | 203 | 209 | 214 | 219 |
| Muskegon | 149 | 135 | 100 | 102 | 134 | 152 | 152 | 159 | 150 | 153 | 161 |
| West Michigan, 4 MSAs | 176 | 163 | 100 | 118 | 164 | 198 | 191 | 202 | 209 | 216 | 217 |
| Detroit, Michigan | 278 | 171 | 100 | 146 | 163 | 194 | 194 | 191 | 204 | 215 | 199 |
| United States | 137 | 149 | 100 | 111 | 152 | 160 | 154 | 158 | 166 | 163 | 155 |

SOURCES: West Michigan indexes based on employment ad counts supplied by the *Battle Creek Enquirer, Grand Rapids Press, Kalamazoo Gazette* and *Muskegon Chronicle;* United States and Detroit indexes derived from the (1967=100) series of The Conference Board.

## Table A-2
## Index of Leading Indicators (1982=100)
(Rounded)

| Area | Annual averages (Selected years) | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 156 | 122 | 100 | 141 | 146 | 132 | 131 | 130 | 132 | 140 | 135 |
| Grand Rapids | 144 | 120 | 100 | 127 | 133 | 126 | 128 | 124 | 126 | 125 | 126 |
| Kalamazoo | 135 | 116 | 100 | 125 | 131 | 123 | 122 | 125 | 125 | 123 | 127 |
| Muskegon | 139 | 120 | 100 | 134 | 144 | 124 | 122 | 123 | 125 | 124 | 126 |
| West Michigan, 4 MSAs | 143 | 119 | 100 | 127 | 134 | 127 | 127 | 126 | 127 | 125 | 128 |
| Michigan | 160 | 125 | 100 | 132 | 141 | 138 | 137 | 140 | 140 | 141 | 140 |

SOURCE: The Upjohn Institute.

### Technical Note

As presently constituted, the components and the range of weights used in the Indexes of Leading Indicators are as follows:

1. *Average weekly hours of production workers in manufacturing.* A separate series is used for each metropolitan area and for the State of Michigan. Weights range from .41 to .47.

2. *Initial claims for unemployment insurance (inverted).* A separate series is used for each metropolitan area and for the State of Michigan. Weights range from .09 to .11.

3. *New dwelling units put under contract (4-term trailing average).* A separate series is used for each metropolitan area and for the State of Michigan. Weights range from .03 to .11.

In addition, each area's index includes the following national measures:

4. *The proportion of firms reporting an increase in new orders.* Weights range from .09 to .11.

5. *The proportion of firms reporting an increase in purchased materials prices.* Weights range from .10 to .12.

6. *The proportion of firms reporting an increase in purchased material inventories.* Weights range from .09 to .11.

7. *The proportion of firms reporting a change in vendor performance (slower delivery time).* Weights range from .08 to .10.

# Table A-3
# Components of the Index of Leading Indicators

### 1. Average Weekly Hours of Production Workers[a]

| Area | Annual averages (Selected years) | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 42.3 | 41.3 | 40.3 | 42.0 | 42.7 | 41.8 | 41.6 | 42.2 | 41.4 | 42.1 | 42.2 |
| Grand Rapids | 41.5 | 39.9 | 38.9 | 41.2 | 41.7 | 41.0 | 41.0 | 41.3 | 40.6 | 40.8 | 40.4 |
| Kalamazoo | 41.9 | 40.4 | 39.9 | 42.0 | 42.4 | 43.1 | 42.6 | 43.5 | 43.9 | 43.6 | 43.0 |
| Muskegon | 43.3 | 41.4 | 39.5 | 41.1 | 42.0 | 40.4 | 40.6 | 40.4 | 40.0 | 40.7 | 40.8 |
| West Michigan, 4 MSAs | 41.9 | 40.3 | 39.3 | 41.5 | 42.0 | 41.4 | 41.3 | 41.7 | 41.2 | 41.4 | 41.1 |
| Michigan | 43.3 | 40.1 | 40.2 | 42.5 | 43.2 | 43.1 | 43.1 | 43.3 | 43.2 | 43.1 | 42.4 |
| United States | 40.3 | 39.7 | 38.9 | 40.1 | 40.7 | 40.5 | 40.4 | 40.5 | 40.8 | 40.7 | 40.7 |

### 2. Initial Claims for Unemployment Insurance (Average per week)

| Area | Annual averages (Selected years) | | | | | | By quarter (Adjusted for seasonal variations)[b] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 422 | 689 | 714 | 348 | 347 | 299 | 295 | 297 | 304 | 304 | 302 |
| Grand Rapids | 929 | 1,504 | 1,674 | 1,323 | 1,068 | 1,147 | 1,181 | 1,181 | 1,050 | 1,102 | 1,098 |
| Kalamazoo | 382 | 599 | 527 | 415 | 299 | 308 | 285 | 294 | 316 | 327 | 298 |
| Muskegon | 474 | 658 | 710 | 332 | 283 | 389 | 375 | 373 | 384 | 426 | 371 |
| West Michigan, 4 areas | 2,206 | 3,451 | 3,625 | 2,417 | 1,998 | 2,144 | 2,132 | 2,158 | 2,054 | 2,145 | 2,070 |
| Michigan | 20,966 | 37,942 | 34,414 | 21,135 | 16,407 | 15,624 | 15,460 | 15,639 | 14,902 | 15,496 | 15,987 |
| United States | 376,680 | 483,180 | 583,880 | 440,170 | 376,050 | 394,260 | 398,800 | 390,310 | 386,970 | 389,180 | 395,700 |

### 3. New Dwelling Units - Put Under Contract

| Area | Annual averages (Selected years) | | | | | | By quarter (Seasonally adjusted annual rate)[b] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 612 | 219 | 88 | 360 | 432 | 259 | 259 | 202 | 240 | 382 | 263 |
| Grand Rapids | 4,800 | 3,121 | 1,555 | 2,815 | 3,268 | 4,342 | 5,284 | 4,027 | 3,953 | 3,347 | 3,889 |
| Kalamazoo | 1,861 | 1,369 | 344 | 794 | 613 | 971 | 929 | 1,124 | 957 | 541 | 1,210 |
| Muskegon | 628 | 500 | 205 | 329 | 415 | 410 | 412 | 356 | 447 | 409 | 368 |
| West Michigan, 4 MSAs | 7,901 | 5,209 | 2,192 | 4,298 | 4,728 | 5,982 | 6,927 | 5,725 | 5,631 | 4,654 | 5,643 |
| Michigan | 62,962 | 33,113 | 16,190 | 25,909 | 32,220 | 40,593 | 39,945 | 41,873 | 39,104 | 40,133 | 41,189 |

### National Purchasing Management Survey[b]

| Indicator | Annual averages (Selected years) | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| 4. New Orders | 119 | 91 | 82 | 128 | 115 | 105 | 101 | 108 | 108 | 113 | 113 |
| 5. Change in Inventories | 102 | 83 | 64 | 95 | 103 | 88 | 83 | 88 | 89 | 89 | 89 |
| 6. Vendor Performance | 111 | 81 | 87 | 113 | 115 | 96 | 94 | 95 | 99 | 99 | 99 |
| 7. Changes in Material Prices | 144 | 147 | 81 | 121 | 123 | 91 | 90 | 89 | 94 | 99 | 95 |

SOURCES: Average weekly hours and initial claims based on information from Michigan Employment Security Commission; number of housing units put under contract, F.W. Dodge Division, McGraw Hill Information Systems Company; survey data from the National Association of Purchasing Management. Seasonal adjustment by the Institute. Quarterly initial claims and new dwelling units are also smoothed (4-term trailing average).

a. Historic Metropolitan Statistical Area (MSA) data adjusted for Battle Creek, Kalamazoo and Muskegon by the Institute.

b. Survey results shown here are based on percent reporting conditions favorable to economic growth minus percent reporting conditions unfavorable to economic growth plus 100.

## Table A-4
## Employment Data for West Michigan MSAs and Michigan[a]

(Thousands of jobs - by place of work)

### Total Wage and Salary Employment[b]

| Labor market area | Annual averages (Selected years) | | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 53.2 | 57.3 | 55.2 | 51.1 | 50.9 | 53.0 | 54.2 | 54.0 | 54.5 | 54.6 | 55.0 | 55.5 |
| Grand Rapids | 191.8 | 240.7 | 266.1 | 261.0 | 266.6 | 283.2 | 293.4 | 292.5 | 294.7 | 294.9 | 294.8 | 294.9 |
| Kalamazoo | 75.3 | 89.9 | 95.6 | 91.8 | 92.1 | 94.8 | 97.2 | 96.5 | 97.9 | 98.3 | 99.0 | 99.0 |
| Muskegon | 52.0 | 55.5 | 56.4 | 52.0 | 50.4 | 53.7 | 55.2 | 54.8 | 55.6 | 55.5 | 55.5 | 55.7 |
| West Michigan, 4 MSAs[b] | 372.3 | 443.4 | 473.3 | 455.9 | 460.0 | 483.8 | 500.7 | 497.6 | 503.0 | 503.1 | 504.2 | 504.9 |
| Michigan | 2,999.1 | 3,442.3 | 3,442.9 | 3,193.2 | 3,223.2 | 3,381.1 | 3,505.3 | 3,486.6 | 3,522.5 | 3,544.1 | 3,565.5 | 3,568.0 |

### Manufacturing Employment

| Labor market area | Annual averages (Selected years) | | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 22.2 | 20.7 | 18.0 | 15.3 | 14.3 | 14.8 | 14.9 | 14.8 | 14.8 | 14.9 | 14.9 | 15.3 |
| Grand Rapids | 72.5 | 83.8 | 89.0 | 84.5 | 86.8 | 95.1 | 99.0 | 99.0 | 99.3 | 99.2 | 99.2 | 98.3 |
| Kalamazoo | 29.3 | 29.5 | 28.5 | 27.0 | 27.1 | 28.3 | 29.1 | 29.0 | 29.2 | 29.5 | 29.7 | 29.8 |
| Muskegon | 24.7 | 21.2 | 19.7 | 17.2 | 16.6 | 18.7 | 19.4 | 19.3 | 19.3 | 19.2 | 19.3 | 19.6 |
| West Michigan, 4 MSAs[b] | 148.7 | 155.2 | 155.2 | 144.0 | 144.7 | 156.9 | 162.3 | 162.1 | 162.7 | 162.8 | 163.2 | 162.9 |
| Michigan | 1,081.1 | 1,128.4 | 998.9 | 876.9 | 880.5 | 962.8 | 984.3 | 979.8 | 982.2 | 987.5 | 984.9 | 979.9 |

### Private Nonmanufacturing Employment

| Labor market area | Annual averages (Selected years) | | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 22.8 | 26.6 | 27.2 | 25.7 | 25.8 | 26.9 | 27.9 | 27.8 | 27.8 | 28.2 | 28.5 | 28.6 |
| Grand Rapids | 99.3 | 126.6 | 144.5 | 147.5 | 151.2 | 159.4 | 165.0 | 164.3 | 165.5 | 166.2 | 166.2 | 167.2 |
| Kalamazoo | 31.0 | 44.1 | 50.3 | 49.1 | 49.8 | 51.4 | 52.6 | 52.2 | 52.9 | 53.1 | 53.5 | 53.8 |
| Muskegon | 20.5 | 25.2 | 27.3 | 26.4 | 25.8 | 27.1 | 28.3 | 28.1 | 28.5 | 28.6 | 28.6 | 28.6 |
| West Michigan, 4 MSAs[b] | 173.6 | 222.5 | 249.4 | 248.6 | 252.5 | 264.8 | 273.7 | 272.4 | 274.7 | 276.1 | 276.8 | 278.2 |
| Michigan | 1,411.3 | 1,717.2 | 1,816.1 | 1,738.6 | 1,772.8 | 1,851.3 | 1,941.3 | 1,931.8 | 1,953.7 | 1,970.3 | 1,993.6 | 1,999.7 |

### Government Employment

| Labor market area | Annual averages (Selected years) | | | | | | | By quarter (Adjusted for seasonal variations) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1977 | 1980 | 1982 | 1983 | 1984 | 1985 | 1985 II | 1985 III | 1985 IV | 1986 I | 1986 II |
| Battle Creek | 8.3 | 10.0 | 10.1 | 10.2 | 10.8 | 11.3 | 11.5 | 11.3 | 11.9 | 11.5 | 11.5 | 11.6 |
| Grand Rapids | 20.0 | 30.3 | 32.3 | 29.0 | 28.5 | 28.7 | 29.4 | 29.2 | 29.9 | 29.5 | 29.3 | 29.3 |
| Kalamazoo | 14.9 | 16.4 | 16.8 | 15.7 | 15.2 | 15.1 | 15.6 | 15.3 | 15.8 | 15.7 | 15.8 | 15.5 |
| Muskegon | 6.8 | 9.1 | 9.4 | 8.3 | 8.1 | 7.9 | 7.6 | 7.4 | 7.8 | 7.6 | 7.6 | 7.5 |
| West Michigan, 4 MSAs[b] | 50.0 | 65.8 | 68.6 | 63.2 | 62.6 | 62.9 | 64.0 | 63.1 | 65.5 | 64.3 | 64.2 | 63.8 |
| Michigan | 506.7 | 596.7 | 627.8 | 577.8 | 570.0 | 567.2 | 579.8 | 575.1 | 586.7 | 586.2 | 587.0 | 588.4 |

SOURCE: Michigan Employment Security Commission. Seasonal adjustment by the Institute.

a. As of January 1985, data from MESC conform to federally defined metropolitan statistical areas (MSAs). Data for Battle Creek (Calhoun), Kalamazoo and Muskegon cover single county areas. Grand Rapids (Kent and Ottawa) is a two-county MSA.

b. Detail may not add to total due to rounding.

## Table A-5
## Population and Income Update for Selected Areas

| Area | Provisional 1984 population estimate | 1980 population | 1980 percent distribution | | | 1980 households | | 1984 per capita income |
|---|---|---|---|---|---|---|---|---|
| | | | Under 18 years | 18 to 64 years | 65 years and over | Number of households | Percent in households | |
| Michigan | 9,075,000 | 9,262,078 | 29.7 | 60.4 | 9.8 | 3,195,213 | 97.9 | $12,621 |
| Southwest Michigan | 1,661,500 | 1,646,402 | 30.0 | 59.7 | 10.3 | 571,625 | 97.5 | 11,652 |
| Counties in MSAs* | 1,298,100 | 1,284,502 | 29.6 | 60.3 | 10.1 | 447,377 | 97.2 | 12,006 |
| Battle Creek | | | | | | | | |
| Calhoun County | 137,800 | 141,579 | 28.9 | 59.8 | 11.3 | 51,123 | 97.0 | 11,729 |
| Benton Harbor | | | | | | | | |
| Berrien County | 163,000 | 171,276 | 30.8 | 58.3 | 11.0 | 60,276 | 98.4 | 11,149 |
| Grand Rapids | 626,400 | 601,680 | 30.2 | 60.0 | 9.8 | 206,047 | 97.4 | 12,385 |
| Kent County | 461,700 | 444,506 | 29.6 | 60.2 | 10.2 | 155,598 | 97.3 | 12,448 |
| Ottawa County | 164,700 | 157,174 | 31.9 | 59.4 | 8.7 | 50,449 | 97.6 | 12,208 |
| Kalamazoo | | | | | | | | |
| Kalamazoo County | 215,200 | 212,378 | 26.7 | 64.4 | 8.9 | 75,405 | 94.9 | 12,817 |
| Muskegon | | | | | | | | |
| Muskegon County | 155,700 | 157,589 | 30.7 | 58.6 | 10.7 | 54,526 | 98.2 | 10,498 |
| Nonmetropolitan | | | | | | | | |
| County Total* | 363,400 | 361,922 | 31.3 | 57.5 | 11.3 | 124,248 | 98.8 | 10,385 |
| Allegan | 84,200 | 81,555 | 32.0 | 57.7 | 10.3 | 27,232 | 98.6 | 10,519 |
| Barry | 46,500 | 45,781 | 31.5 | 58.4 | 10.1 | 15,433 | 98.6 | 10,347 |
| Branch | 38,700 | 40,188 | 30.0 | 58.2 | 11.8 | 14,014 | 97.5 | 10,389 |
| Cass | 47,800 | 49,499 | 30.7 | 58.4 | 10.9 | 17,236 | 99.5 | 11,476 |
| Oceana | 22,000 | 22,002 | 32.4 | 55.3 | 12.3 | 7,418 | 98.8 | 8,662 |
| St. Joseph | 57,700 | 56,083 | 30.6 | 57.4 | 11.9 | 19,794 | 99.1 | 10,745 |
| Van Buren | 66,500 | 66,814 | 31.6 | 56.2 | 12.2 | 23,121 | 99.0 | 9,700 |

SOURCES: 1984 provisional estimate from *Current Population Reports, Series P-26, No. 83-52-C & P-25, No. 976,* U.S. Department of Commerce, Bureau of the Census. Population and Household statistics for 1980 from Report *PC80-1-B24;* Income Statistics from Bureau of Economic Analysis, *Survey of Current Business,* April 1986.

NOTE: 1985 Provisional MSA population estimates have been released as follows: Battle Creek 136,500; Benton Harbor 162,800; Grand Rapids 634,900; Kalamazoo 215,500; and Muskegon 156,700.

*Metropolitan Statistical Areas as defined by the federal Office of Management and Budget after June 30, 1983.

## Table A-6
## Average Residential Contract Mortgage Rates in Michigan

| Year | Jan. | Feb. | March | April | May | June | July | August | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1981 | 15.72 | 15.71 | 15.68 | 15.57 | 16.20 | 16.72 | 17.41 | 17.76 | 18.17 | 18.48 | 18.48 | 17.53 |
| 1982 | 17.04 | 17.21 | 17.13 | 17.23 | 17.16 | 17.09 | 16.99 | 16.88 | 15.95 | 15.55 | 14.43 | 13.99 |
| 1983 | 13.66 | 13.41 | 13.25 | 12.67 | 12.61 | 12.52 | 12.81 | 13.18 | 13.94 | 13.86 | 13.78 | 13.77 |
| 1984 | 13.72 | 13.42 | 13.46 | 13.69 | 13.96 | 14.61 | 14.74 | 14.58 | 14.42 | 14.34 | 13.85 | 13.78 |
| 1985 | 13.64 | 13.37 | 13.49 | 13.45 | 13.33 | 12.55 | 12.34 | 12.42 | 12.28 | 12.31 | 12.20 | 11.75 |
| 1986 | 11.07 | 11.08 | 10.54 | 10.41 | 10.38 | 10.80 | 10.84 | ... | ... | ... | ... | ... |

SOURCE: Business Information Division, Federal Home Loan Bank of Indianapolis.

NOTE: The contract rate shown is for 75 percent loan-to-value ratio, 25-year maturity loans on new single family homes. Alternative plans allow mortgage rates to be adjusted, varied, blended, or shared.

## Table A-7
## Selected Labor Market Indicators
(Not adjusted for seasonal variations)

| Area | Average for manufacturing production workers[a] June 1986 | | | Civilian labor force unemployment rate | |
|---|---|---|---|---|---|
| | Weekly hours | Hourly earnings | Weekly earnings | March 1986 | June 1986 |
| **Michigan** | **42.3** | **$12.76** | **$539.75** | **9.6** | **9.4** |
| **West Michigan MSAs:** | | | | | |
| Battle Creek | 42.4 | 13.32 | 564.77 | 9.7 | 9.7 |
| Benton Harbor | 41.7 | 9.47 | 394.90 | 9.6 | 10.3 |
| Grand Rapids | 40.3 | 10.70 | 431.21 | 7.7 | 8.3 |
| Kalamazoo | 42.2 | 11.94 | 503.87 | 6.1 | 7.1 |
| Muskegon | 40.3 | 11.47 | 462.24 | 11.7 | 11.8 |
| **Other MSAs:** | | | | | |
| Ann Arbor-Ypsilanti | 44.3 | 13.47 | 596.72 | 5.2 | 5.7 |
| Detroit | 42.5 | 13.61 | 578.42 | 8.6 | 8.7 |
| Flint | 43.1 | 14.56 | 627.54 | 10.2 | 10.7 |
| Jackson | 40.9 | 10.34 | 422.91 | 9.9 | 10.2 |
| Lansing-E. Lansing | 41.9 | 14.19 | 594.56 | 7.7 | 7.7 |
| Saginaw-Bay City-Midland | 45.1 | 13.51 | 609.30 | 11.0 | 11.0 |
| **Other areas:** | | | | | |
| Upper Peninsula | 41.0 | 9.59 | 393.19 | 17.3 | 13.5 |

SOURCES: U.S. Department of Labor and the Michigan Employment Security Commission (MESC) (most recent benchmark).

a. Preliminary. Earnings include overtime and part-time wages.

## Table A-8
## Commercial Banking Data - Kalamazoo
(In thousands of current dollars)

| Item | 1985 | | | 1986 | |
|---|---|---|---|---|---|
| | June 30 | September 30 | December 31 | March 31 | June 30 |
| Total Deposits | $1,334,701 | $1,335,994 | $1,402,013 | $1,372,184 | $1,374,830 |
| Demand Deposits | 255,757 | 260,380 | 293,450 | 266,848 | 286,480 |
| Loans Outstanding: | | | | | |
| Total | 951,970 | 959,615 | 1,021,820 | 1,018,225 | 1,013,254 |
| Mortgage | 341,304 | 346,374 | 352,470 | 347,745 | 353,276 |
| Commercial & Industrial | 251,064 | 238,695 | 245,318 | 245,894 | 236,969 |
| Consumer | 259,083 | 266,973 | 275,019 | 275,728 | 279,590 |
| Industrial Development | 43,385 | 57,033 | 90,951 | 91,514 | 91,299 |
| Other | 57,134 | 50,540 | 58,062 | 57,344 | 52,120 |

SOURCE: Quarterly call reports of seven out of eight commercial banks in Kalamazoo County. Does not include other financial institutions.

NOTE: Amounts shown are in current dollars and are not adjusted for seasonal variations. Industrial development obligations are of the state or political subdivisions in U.S.

## Table A-9
## Consumer Price Index (CPI), U.S. City Average (1967=100)

| Year | Annual Avg. | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CPI for Urban Wage Earners and Clerical Workers - All Items (CPI-W)** | | | | | | | | | | | | | |
| 1984 | 307.6 | 302.7 | 303.3 | 303.3 | 304.1 | 305.4 | 306.2 | 307.5 | 310.3 | 312.8 | 312.2 | 311.9 | 312.2 |
| 1985 | ... | 311.8 | 312.7 | 314.0 | 316.0 | 317.3 | 318.3 | [Discontinued after June 1985 | | | | | .] |
| **CPI for Urban Wage Earners and Clerical Workers - All Items (CPI-W) - New Series*** | | | | | | | | | | | | | |
| 1985 | 318.5 | 312.6 | 313.9 | 315.3 | 316.7 | 317.8 | 318.7 | 319.1 | 319.6 | 320.5 | 321.3 | 322.6 | 323.4 |
| 1986 | ... | 324.3 | 323.2 | 321.4 | 320.4 | 321.4 | 323.0 | ... | ... | ... | ... | ... | ... |
| **CPI for All Urban Consumers - All Items (CPI-U)** | | | | | | | | | | | | | |
| 1984 | 311.1 | 305.2 | 306.6 | 307.3 | 308.8 | 309.7 | 310.7 | 311.7 | 313.0 | 314.5 | 315.3 | 315.3 | 315.5 |
| 1985 | 322.2 | 316.1 | 317.4 | 318.8 | 320.1 | 321.3 | 322.3 | 322.8 | 323.5 | 324.5 | 325.5 | 326.6 | 327.4 |
| 1986 | ... | 328.4 | 327.5 | 326.0 | 325.3 | 326.3 | 327.9 | ... | ... | ... | ... | ... | ... |

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

NOTES: Monthly data shown above are for all items and are not adjusted for seasonal variations. Unadjusted CPI data are used extensively for escalation purposes. Although the CPI is often called the "Cost-of-Living Index," it measures only price change, which is just one of several important factors affecting living costs. The CPI-W and CPI-U series are all linked historically to the original CPI Index for Urban Wage Earners and Clerical Workers.

* Effective in January 1985 the home ownership component of the CPI-W was changed to a rental-equivalence basis.

PERCENT CHANGE: Movements of these indexes from one time period to another are usually expressed as percent changes rather than changes in index points. Index point changes are affected by the level of the index in relation to its base period while percent changes are not. Example of computation follows:

$$100 \times \frac{\text{318.5 (1985 annual avg.) - 307.6 (1984 annual avg.)}}{\text{307.6 (1984 annual avg.)}} = 3.5\% = \text{Percent change in CPI-W.}$$

## Table A-10
## Michigan Statistics for Selected Months

(Not adjusted unless indicated)

| Measure | Recent: June 1986 | 3 months earlier: March 1986 | 3 months earlier: Percent change March to June | 12 months earlier: June 1985 | 12 months earlier: Percent change June to June |
|---|---|---|---|---|---|
| Leading indicators measures: | | | | | |
| Average weekly hours | 42.3 | 43.2 | -2.1 | 43.0 | -1.6 |
| UI initial claims (per week) | 12,440 | 14,768 | -15.8 | 12,420 | 0.2 |
| New dwelling units | 4,692 | 2,528 | 85.6 | 5,365 | -12.5 |
| Jobs in area: | | | | | |
| Manufacturing | 984,000 | 978,000 | 0.6 | 988,000 | -0.4 |
| Nonmanufacturing | 2,035,000 | 1,949,000 | 4.4 | 1,972,000 | 3.2 |
| Government | 580,000 | 603,000 | -3.8 | 566,000 | 2.5 |
| Total employed | 3,599,000 | 3,530,000 | 2.0 | 3,526,000 | 2.1 |
| Number unemployed | 415,000 | 414,000 | 0.2 | 448,200 | -7.4 |
| Unemployment rate (seas. adj.) | 9.4 | 9.6 | ... | 10.2 | ... |
| Percentage point change | ... | ... | -0.2 | ... | -0.8 |
| Michigan index (seas. adj.): | | | | | |
| Leading indicator | 141 | 140 | 0.7 | 136 | 3.7 |

SOURCES: New dwelling unit data from F. W. Dodge Division, McGraw Hill Information Systems Company. Indexes from the Upjohn Institute. Other data from the U.S. Department of Labor and the Michigan Employment Security Commission.

## Table A-11
## Vacancy Rates for Selected Metropolitan Statistical Areas (MSAs) in Michigan

| Metro area | Date of survey* | Total existing housing units: All types | Single family | Single family attached | Multi-family | Mobile home |
|---|---|---|---|---|---|---|
| Ann Arbor | 3/17/86 | 1.9 | 1.0 | 1.8 | 3.5 | 3.9 |
| Benton Harbor | 4/15/86 | 3.5 | 2.6 | 4.9 | 8.1 | 4.8 |
| Detroit | 11/22/85 | 1.9 | 1.5 | 3.4 | 3.1 | 1.7 |
| Flint | 2/15/86 | 2.5 | 2.1 | 3.6 | 4.1 | 3.3 |
| Grand Rapids | 3/15/86 | 1.8 | 1.4 | 3.1 | 3.4 | 1.6 |
| Jackson | 5/07/86 | 2.9 | 2.2 | 6.8 | 6.2 | 1.7 |
| Kalamazoo | 2/14/86 | 2.4 | 1.9 | 3.2 | 3.4 | 4.8 |
| Lansing | 4/11/86 | 2.6 | 2.1 | 3.9 | 3.6 | 3.8 |
| Muskegon | 5/07/86 | 2.4 | 1.7 | 19.1 | 3.1 | 1.0 |

| Metro area | Date of survey* | Existing housing units plus units under construction: All types | Single family | Single family attached | Multi-family | Mobile home |
|---|---|---|---|---|---|---|
| Ann Arbor | 3/17/86 | 2.6 | 1.3 | 1.8 | 4.9 | n.a. |
| Benton Harbor | 4/15/86 | 3.6 | 2.7 | 4.9 | 8.1 | n.a. |
| Detroit | 11/22/85 | 2.4 | 1.8 | 4.7 | 4.4 | n.a. |
| Flint | 2/15/86 | 2.6 | 2.2 | 3.9 | 4.5 | n.a. |
| Grand Rapids | 3/15/86 | 2.4 | 1.6 | 4.4 | 5.1 | n.a. |
| Jackson | 5/07/86 | 3.0 | 2.3 | 6.8 | 6.3 | n.a. |
| Kalamazoo | 2/14/86 | 2.6 | 2.1 | 3.2 | 3.5 | n.a. |
| Lansing | 4/11/86 | 3.3 | 2.6 | 4.4 | 5.2 | n.a. |
| Muskegon | 5/07/86 | 2.6 | 1.9 | 19.1 | 3.6 | n.a. |

SOURCE: Federal Home Loan Bank of Indianapolis.
NOTE: Battle Creek last surveyed in 1984.
*End date.

## Table A-12
## Labor Force Participation by Race, Sex, and Spanish Origin
## United States, Michigan, and Five Metro Areas in West Michigan

| Area | | All persons 16 & over | All males | All females | Black persons 16 & over | Black males | Black females | Persons of Spanish origin |
|---|---|---|---|---|---|---|---|---|
| United States | | | | | | | | |
| | 1980 | 62.0 | 75.1 | 49.9 | 59.4 | 66.7 | 53.3 | 63.4 |
| | 1970 | 58.2 | 76.6 | 41.4 | 57.7 | 69.8 | 47.5 | n.c. |
| Michigan | | | | | | | | |
| | 1980 | 61.5 | 75.3 | 48.8 | 56.7 | 64.2 | 50.3 | 63.0 |
| | 1970 | 58.1 | 77.6 | 40.2 | 58.6 | 72.7 | 46.0 | 60.5 |
| Battle Creek | | | | | | | | |
| | 1980 | 60.4 | 73.3 | 48.8 | 57.9 | 66.8 | 50.2 | 64.9 |
| | 1970 | 60.1 | 76.5 | 45.2 | 61.6 | 69.5 | 53.5 | 65.1 |
| Benton Harbor | | | | | | | | |
| | 1980 | 61.9 | 75.8 | 49.5 | 53.6 | 62.2 | 47.1 | 61.9 |
| | 1970 | 60.6 | 79.7 | 43.2 | 56.0 | 71.0 | 43.4 | 66.2 |
| Grand Rapids | | | | | | | | |
| | 1980 | 66.2 | 80.5 | 53.4 | 64.1 | 70.1 | 59.0 | 71.2 |
| | 1970 | 60.7 | 80.4 | 43.2 | 60.8 | 74.1 | 49.7 | 64.9 |
| Kalamazoo | | | | | | | | |
| | 1980 | 65.1 | 76.6 | 54.6 | 67.3 | 66.6 | 58.5 | 62.6 |
| | 1970 | 59.0 | 76.1 | 43.7 | 62.9 | 72.2 | 54.4 | 65.8 |
| Muskegon | | | | | | | | |
| | 1980 | 59.6 | 72.4 | 48.1 | 49.1 | 52.6 | 46.1 | 64.9 |
| | 1970 | 58.1 | 78.1 | 40.9 | 58.9 | 73.3 | 46.5 | 56.3 |

SOURCE: 1970 and 1980 Census of Population.
n.c.=not comparable.

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